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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,312	08/10/2005	Todd A. Loeffelholz	02316.1662USWO	6009
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MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EXAMINER	
			NGO, HUNG V	
			ART UNIT	PAPER NUMBER
			2831	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/505,312

**Applicant(s)**

LOEFFELHOLZ ET AL.

**Examiner**

Hung V. Ngo

**Art Unit**

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24,41 and 45-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24,41 and 45-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 10-05-07, 09-18-07, 08-31-07
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24, 41, 45-61, 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (US 5,909,155) in view of Duncan et al (US 6,459,571).

Re claim 24, Anderson et al disclose a module (10) for containing a circuit, the module comprising:

a housing having a front wall (14) and a rear wall (16), the front wall including a conductive material (col. 3, line 16); rear connectors (40) mounted at the rear wall;

re claim 41, module for containing a circuit, the module comprising:  
a housing having a front wall (14) and a rear wall (16)(Fig 1), the front wall including a conductive material (col. 3, line 16); rear connectors (40) mounted at the rear wall;

Re claim 45, Anderson et al disclose a telecommunications module comprising:  
a housing (Fig 1) having a wall (14);  
radio frequency circuitry (44)(abstract) positioned within the housing;  
a plug (64), the plug being electrically connected to the radio frequency circuitry;

Re claim 47, wherein the plug includes an attenuator pad (Fig 1).

Re claim 50, wherein the radio frequency circuitry is selected from a group including splitter circuitry, combiner circuitry, equalizing circuitry, directional coupling circuitry, and filtration circuitry (col. 5, line 34).

Re claim 51, wherein the plug includes plug circuitry, and wherein the plug circuitry is not located exterior to the housing (Fig 11).

Re claim 52, further comprising a cover (100, 218) for covering the receptacle.

Re claim 54, wherein the plug includes an attenuator pad (Fig 1), and wherein the cover is configured such that attenuation values of the attenuator pads can be determined without removing the cover from the housing (col. 8, lines 33, 34).

Re claim 55, wherein the cover has a transparent construction (col. 8, lines 33-34).

Re claim 56, wherein the housing is constructed of an electrically conductive material (col. 3, line 15).

Re claim 57, wherein the radio frequency circuitry includes a plug connector (60) for electrically connecting the plug to the radio frequency circuitry.

Re claim 59, wherein the radio frequency circuitry includes a plug connector (60) for electrically connecting the plug to the radio frequency circuitry when the plug is inserted into the receptacle.

Re claim 60, wherein the radio frequency circuitry includes a plug connector (60) for electrically connecting the plug to the radio frequency circuitry when the plug is inserted into the receptacle

Re claim 61, wherein the wall comprises a front wall (14), wherein the housing includes a rear wall (16) positioned opposite the front wall, wherein coaxial connectors (40) are mounted at the rear wall, wherein a plug connector is positioned within the housing adjacent the front wall for electrically connecting the plug to the radio frequency circuitry when the plug is inserted into the receptacle, and wherein the radio frequency circuitry includes a circuit board (44) that electrically connects the co-axial connectors to the plug connector.

Re claim 65, wherein the wall comprises a front wall, wherein the housing includes a rear wall positioned opposite the front wall, wherein co-axial connectors are mounted at the rear wall, wherein plug connectors are positioned within the housing adjacent the front wall for electrically connecting the plugs to the radio frequency circuitry when the plugs are inserted into the receptacles, wherein the radio frequency circuitry includes a circuit board that electrically connects the co-axial connectors to the plug connectors.

Re claim 66, Anderson et al disclose a telecommunications module comprising:  
a housing having a wall (Fig 1);  
radio frequency circuitry (44)(abstract) positioned within the housing;  
a plug (64) the plug being electrically connected to the  
radio frequency circuitry when the plug is inserted within the receptacle (Fig 1);

Re claim 67, Anderson et al disclose a method for making a telecommunications module including a housing containing radio frequency circuitry (Fig 1), the housing having a wall (14) for receiving a circuit component (64)(Fig 1), the circuit component

being electrically connected to the radio frequency circuitry (44) when the circuit component is inserted within the receptacle, the method comprising:

The teaching as discussed above does not disclose at least one receptacle defined through the front wall for receiving a circuit component, the receptacle being generally rectangular and including a length, a width and a depth, the length being less than or equal to .5 inches, the width being less than or equal to .2 inches, and the depth be of sufficient magnitude to allow the receptacle to function as an RF choke for choking RF emissions generated within the housing, the depth being at least .3 inches (re claim 24, 46, 49, 58), at least one receptacle defined through the front wall for receiving a circuit component the receptacle being configured to function as an RF choke; and a non-metallic cover for covering the receptacle (re claim 41), a receptacle being configured as a RF choke that chokes RF emissions generated within the housing to a level such that the module radiates signals that are 100 db down or better from a carrier across a frequency range of 5 megahertz to 1 gigahertz even in the absence of a cover over the receptacle (re claim 45), a plurality of receptacles for receiving plugs that electrically connect with the radio frequency circuitry when the plugs are inserted in the receptacles (re claim 48), wherein the cover made of plastic (re claims 53, 55), the plug connector including an extension that defines at least a portion of the receptacle, the extension being constructed of an electrically conductive material (re claim 57), wherein the receptacle has a generally rectangular configuration including opposing major surfaces and opposing minor surfaces that function as guide surfaces for channeling the plug into the plug connector when the plug is inserted into the receptacle, the major and

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minor surfaces being configured such that misalignment of the plug relative to the plug connector is not possible during the insertion process (re claim 59), wherein the receptacle includes a first thickness positioned adjacent to the plug connector and a second thickness positioned outwardly from the plug connector, the second thickness being larger than the first thickness to allow the receptacle to accommodate graphics provided on the plug (re claim 60), wherein the plugs include attenuator plugs, wherein the receptacles are generally rectangular and have widths that are less than about .2 inches, lengths that are less than about .5 inches, and minimum depths that are at least .3 inches and wherein the receptacles include opposing major surfaces and opposing minor surfaces that function as guide surfaces for channeling the plugs into the plug connectors when the plugs are inserted into the receptacles, the major and minor surfaces being configured such that misalignment of the plugs relative to the plug connectors is not possible during the insertion process (re claim 65), a receptacle that extends through the wall of the housing, and the receptacle including at least one guide surface for channeling the plug into the plug connector when the plug is inserted into the receptacle, the at least one guide surface being configured such that misalignment of the plug relative to the plug connector is not possible during the insertion process (re claim 66), selecting a depth of the receptacle such that the receptacle chokes RF emissions generated by the radio frequency circuitry to a desired level, the depth being selected based on a frequency of the RF emissions and a size of the receptacle (re claim 67).

Duncan et al teach the use of at least one receptacle (10, 30) defined through a front wall (46) having guide surface for enhancing EMI shielding of circuit components. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the receptacle with the structure of Anderson et al for the purpose of enhancing EMI shielding.

It is well known in the electrical art to select a specific dimension of a receptacle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dimension of the receptacle of the modified Anderson et al by employing specific dimension for fitting with the circuit components.

As to the cover made of plastic, non metallic, the extension made of conductive material, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the structure of Anderson et al by employing specific material for intended use, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Claims 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al in view of Duncan et al as applied to claim 45 above, and further in view of Fishman (US D440,558).

The teaching as discussed above does not disclose wherein a raised platform located at the outer face (re claim 62), the housing defines a slot that extends about a perimeter of the raised platform, and wherein the slot is sized to receive an edge of the cover (re claim 63), wherein the outer face is contoured such that the wall has a greater



thickness adjacent a mid-region of the width as compared to side regions of the width (re claim 64),

Fishman teach the use of a raised platform located at the outer face, the housing defines a slot that extends about a perimeter of the raised platform, and wherein the slot is sized to receive an edge of the cover (Fig 6), wherein the outer face is contoured such that the wall has a greater thickness adjacent a mid-region of the width as compared to side regions of the width (Fig 5), it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the structure of Anderson et al by employing a specific shape for aesthetic purpose.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 24, 41 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung V. Ngo whose telephone number is (571) 272-1979. The examiner can normally be reached on Monday to Friday 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2800 EXT 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung V Ngo/  
Primary Examiner, Art Unit 2831